

1. Product Name

- MaxCem® Type IS portland blast-furnace slag cement

2. Manufacturer

Holcim (US) Inc.
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 Chicago, IL 60631
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3. Product Description

Basic Use

MaxCem® Type IS portland blast-furnace slag cement which contains some portion of pre-consumer recycled materials, is manufactured to maximize eco-efficiency. Portland blast-furnace slag cement is a hydraulic cement in which the slag constituent is up to 95% by mass of the blended cement. Use of these materials may contribute to achieving points or credits in LEED® or other green building assessment systems.

MaxCem® Type IS portland blast-furnace slag cement is a building material which is used in a wide variety of commercial and architectural applications. Concrete made with MaxCem® Type IS portland blast-furnace slag cement using proper mix design can be resistant to the impact of harsh environmental influences, such as frost and de-icing chemicals.

Uses include:

- | | |
|--------------------------------|------------------------------|
| ■ Bridges | ■ Precast |
| ■ Cast-in-place | ■ Pre-stress or post-tension |
| ■ Concrete Masonry Units (CMU) | ■ Ready-mix |
| ■ Drains | ■ Roads |
| ■ Grout | ■ Soil Stabilization |
| ■ Masonry | ■ Tilt-up |
| ■ Pipe | ■ Water tanks |

Packaging

MaxCem® Type IS portland blast-furnace slag cement is regionally available and can be supplied in bulk quantities.



MaxCem® Type IS portland blast furnace slag cement construction—Wind Turbine Base

Composition and Materials

The primary ingredients of MaxCem® Type IS portland blast-furnace slag cement are portland cement or clinker, granulated blast-furnace slag (GBFS), and gypsum ground to a fine powder that, when mixed with water, sets and hardens. The hydration of calcium silicates forms a fiber-like material called calcium silicate hydrate (CSH).

All manufacturing is quality controlled to ensure product conformance.

Types

MaxCem® Type IS portland blast-furnace slag cement produced to meet the requirements of ASTM C595 (Type IS) and AASHTO M 240 (Type IS) for portland blast-furnace slag cement.

Benefits

- Meets the requirements of ASTM C595
- Meets the requirements of AASHTO M 240

Limitations

There are many variables that affect concrete performance beyond the control of the cement manufacturer. Good concreting practices are required in order to achieve desired results. Attention must be given to formwork, batching, mixing, placing, finishing and curing. In special applications, selection of aggregates, admixtures and additives may need to be scrutinized. Holcim (US) Inc. recommends that all concrete mix proportions be evaluated for acceptable performance prior to use.

4. Technical Data

Applicable Standards

Produced in accordance with:

- **ASTM C 595 (Type IS)** Standard Specification for Blended Hydraulic Cements
- **AASHTO M 240 (Type IS)** Standard Specification for Blended Hydraulic Cements

Physical / Chemical Properties

Portland blast-furnace slag cements are manufactured to conform to all applicable requirements for the designated type of ASTM C595 and AASHTO M 240.

5. Installation

Requirements

For installation, consult specific project requirements or applicable specifications and guides as available from the American Society of Testing and Materials (ASTM), American Concrete Institute (ACI), or other reputable industry organization.

Preparatory Work

Deliver products in manufacturer's original, unopened, undamaged, containers with identification labels intact. Store materials protected from exposure to harmful environmental conditions and at temperatures and humidity conditions recommended by the manufacturer.

Verify that site conditions are acceptable for installation. Do not proceed with installation until unacceptable conditions are corrected.

Methods

Concrete is a material that includes several constituents such as cement, aggregate (usually sand and gravel), water, and admixtures. Freshly mixed concrete should generally be plastic or semi-fluid and moldable.

Good concreting practices are required for durable and strong concrete. Proper proportioning, batching, mixing, placing, consolidating, finishing and curing, as well as proper subgrade preparation, formwork, uniform slump, special techniques and other steps are all critical to achieving the desired results.

The character of concrete is largely determined by the water-cement ratio (w/c), and is especially critical to a durable, strong concrete. Freshly mixed (plastic) and hardened properties of concrete can be enhanced by adding supplementary cementitious materials (SCM's) or admixtures during batching. Admixtures may be used to adjust setting time and/or hardening, reduce water demand, increase workability, entrain air, improve cost-effectiveness or other properties.

Safety Precautions

Refer to the applicable Safety Data Sheet (SDS), which should be consulted prior to the use of this product. These SDS's are available at www.holcim.us.

Avoid direct contact with the skin. If contact occurs, wash skin with water as soon as possible. Exposure of sufficient duration to portland blast-furnace slag cement can cause serious and potentially irreversible tissue destruction in the form of chemical burns. If cement gets into the eyes, immediately flush eyes thoroughly with water and seek medical attention. Proper PPE is always required.

6. Availability and Cost

Availability: Portland blast-furnace slag cement is regionally available. Contact the nearest Holcim (US) Inc. sales office for availability in your area.

Cost: Pricing information can be obtained from the nearest Holcim (US) Inc. sales office.

7. Warranty

Upon request, Holcim (US) Inc. can provide Material Certification Reports demonstrating that MaxCem® Type IS portland blast-furnace slag cement meets applicable ASTM and AASHTO standards. Holcim (US) Inc. will not guarantee finish work, having no control over the use of this product. Holcim (US) Inc. shall not be responsible for condition of cement after delivering to dealer or distributor.

8. Technical Services

Technical service is available by contacting the nearest Holcim (US) Inc. sales office at (888) 646-5246.

For questions on any technical information contained in the document, contact a Holcim (US) Inc. Technical Services Engineer for further detail.

9. Filing Systems

Additional product information is available from the manufacturer.

Corporate Headquarters

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